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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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1600 Tysons Boulevard  
McLean, VA 22102

EXAMINER
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POKER, JENNIFER A

ART UNIT	PAPER NUMBER
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2832

DATE MAILED: 01/30/2003

9

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/012,209

Applicant(s)

YUE, CHIK PATRICK

Examiner

Jennifer A. Poker

Art Unit

2832

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

1)  Responsive to communication(s) filed on 14 January 2003.

2a)  This action is FINAL. 2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

4)  Claim(s) 1-18 is/are pending in the application.

4a) Of the above claim(s) 1-7 and 15-18 is/are withdrawn from consideration.

5)  Claim(s) \_\_\_\_\_ is/are allowed.

6)  Claim(s) 8-14 is/are rejected.

7)  Claim(s) \_\_\_\_\_ is/are objected to.

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on 22 April 2002 is/are: a)  accepted or b)  objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)  The proposed drawing correction filed on \_\_\_\_\_ is: a)  approved b)  disapproved by the Examiner. If approved, corrected drawings are required in reply to this Office action.

12)  The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

13)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)  All b)  Some \* c)  None of:

1.  Certified copies of the priority documents have been received.

2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14)  Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a)  The translation of the foreign language provisional application has been received.

15)  Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

1)  Notice of References Cited (PTO-892)

2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)  Information Disclosure Statement(s) (PTO-1449) Paper No(s) 9

4)  Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_

5)  Notice of Informal Patent Application (PTO-152)

6)  Other: \_\_\_\_\_

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election without traverse of Group II, claims 8-14, in Paper No. 8 is acknowledged.
2. Claims 1-7 and 15-18 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected group, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 8.

### *Specification*

3. The abstract of the disclosure is objected to because it does not correspond to the "Claimed" invention. Due to the applicant's election without traverse of Group II, Claims 8-14, the invention relates to a product, not a method.

Correction is required. See MPEP § 608.01(b).

4. The abstract of the disclosure is further objected to because it contains a typographical error. In line 4, the abstract reads, "The method thin includes aying. . ." Correction is required.

### *Drawings*

5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference signs mentioned in the description: "100", "200", "308", "314", "400", "408", and "410". A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

6. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference signs not mentioned in the description: “**M<sub>3</sub>**”, “**M<sub>12</sub>**”, “**M<sub>23</sub>**”, and “**R**”. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- (e) The invention was described in–
  - (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
  - (2) A patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

8. Claims 8-11 and 13 rejected under 35 U.S.C. 102(e) as being unpatentable by U.S. Patent Number 6,396,362 to Mourant, et al.

Mourant, et al, discloses a balun transformer/circuit, to be fabricated on an integrated circuit substrate. Even more particularly, Mourant, et al, discloses balun transformer structures, which are disposed in a plurality of layers so as to make the balun structures which are not only compact but which also reduce parasitic capacitance effects between primary and secondary transformer circuits.

The structure comprises:

- (1) A substrate for the structure to be mounted on, (Column 1, lines 5-15)

- (2) A primary circuit disposed in a layer above the substrate, comprising at least one winding. (Figures 6, 6A, 8, and 8A)
- (3) A secondary circuit disposed in a layer above the substrate, this layer comprising a primary and a secondary winding interleaved, (Figures 6 and 6A) (Column 5, lines 1-20)
- (4) An insulative layer disposed between the upper and lower planar structures. (Column 4, lines 46-49) (Figures 6, 6A, 8, and 8A)

Regarding claim 9, it is shown in figures 6 and 6A the layer comprising "at least one" winding is below the layer comprising the interleaved primary and secondary windings.

Regarding claim 10 and 13, it is shown in figures 8 and 8A, that both the upper and lower layers comprise a plurality of interleaved windings, which are insulated from one another.

Regarding claim 11, it is shown in figures 6, 6A, 8, and 8A that the windings are in a spiral configuration.

### ***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 12 and 14 rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Number 6,396,362 to Mourant, et al.

Mourant, et al, discloses the claimed invention except for a third conductive wherein the "at least one inductor" of the first conductive layer is partly in the third conductive layer. Mourant, et al, teaches that the parasitic capacitance introduced between the primary and secondary circuit is

Application/Control Number: 10/012,209

Art Unit: 2832

minimized as a result of having provided a multi-layer structure. Thus, the parasitic capacitance between layers is across the primary only and not between the primary and secondary. This is set forth in column 5, lines 10-15, and illustrated in figure 6. It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate a third conductive layer insulated and located above the conductive layer comprising a plurality of interleaved windings, and connecting only the primary winding. This layer would be an addition to the structure illustrated in figure 6. By connecting only the primary winding throughout the structure and by adding another conductive layer the parasitic capacitance introduced between the primary and secondary circuit would be minimized further as a result of the multi-layer structure.

### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A. Poker whose telephone number is 703-305-4037. The examiner can normally be reached on 6:00-3:30, Mon.-Fri. (alternating Fridays off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin G. Enad can be reached on 703-308-7619. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1782.

jap  
January 23, 2003

ELVIN ENAD  
SUPERVISORY PATENT EXAMINER  
TECHNICAL COORDINATOR 2832  
1/27/03